

ABSTRACT OF THE DISCLOSURE

A symmetric type image filter processing apparatus having a symmetric type image filter composed of symmetric kernel coefficients, in which SIMD commands are utilized efficiently for making the filtering processes high speed, is provided. The symmetric type image filter processing apparatus provides a row-wise intermediate data generating section, a row-wise intermediate data utilizing section, and a memory. The row-wise intermediate data generating section multiplies each kernel coefficient of M pieces in each column of $\{ (N + 1) / 2 \}$ columns at the right or left column by each pixel of M pieces in the column direction of image data having P pixels in one row, and cumulatively adds the multiplied results, by using SIMD commands that can process sequential data of Q pieces. This multiplication and addition operation is executed P / Q times, and intermediate data in one row of the image data are generated and stored in an intermediate data storing region in the memory. The row-wise intermediate data utilizing section reads out the intermediate data storing in the intermediate data storing region of the memory. And operation result pixels are calculated by cumulatively adding the intermediate data.